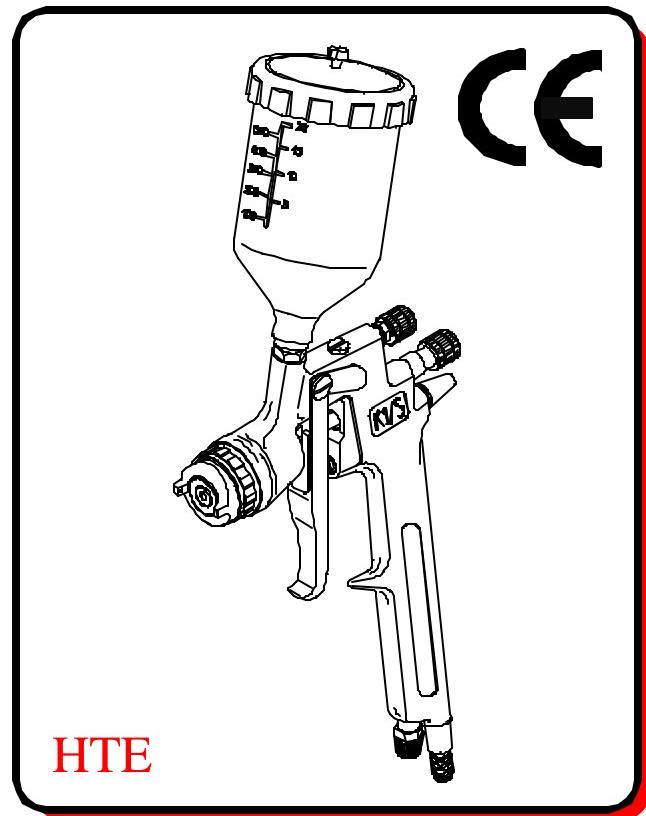


# USE AND MAINTENANCE MANUAL



WRITTEN BY REDIMEC Snc  
SETTIMO MILANESE (MI)



## K1/S GRAVITY SPRAY GUN

(Rev. 3 - 12/04/02)  
USA - K1/S - 1.0

A.O.M.- AMERICA, LLC  
54 S. Commerce Way, Suite 180  
Bethlehem, PA 18017 USA

COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
ISO 9001

Cert. -04985-99-AQ-MIL-SINCERT

## DECLARATION OF CONFORMITY



ASTURO ORIGINALI MAVES Spa  
Via Cascina Venina, 20 B/C  
Assago (MI) Italy 20090  
39-02-89305416 Fax: 39-02-89305497  
E-Mail: export@asturooriginali.com



MODEL: K1/S
SERIAL NUMBER
YEAR OF MANUFACTURE 200
ACCESSORIES SUPPLIED

A.O.M. spa DECLARIES on its own responsibility that the machine to which this declaration refers, conforms with the prescriptions in the following directives:

DIRETTIVA 89/392/CEE MODIFICATA DALLA DIRETTIVA 91/368/CEE  
DALLA DIRETTIVA 93/44/CEE E DALLA DIRETTIVA 93/68/CEE (DIRETTIVA MACCHINE)  
DIRECTIVE 89/392/EEC AMENDED BY DIRECTIVE 91/368/EEC  
BY DIRECTIVE 93/44/EEC AND BY DIRECTIVE 93/68/EEC (MACHINE DIRECTIVE)

The machine also conforms with following standards:

UNI EN 292/1 (november 1992) Sicurezza del macchinario, Concetti fondamentali, principi generali di progettazione.- Terminologia, metodologia di base  
Machine safety, Fundamental concepts. General design principles - Terminology, basic methodology.

UNI EN 292/2 (november 1992) Sicurezza del macchinario - Concetti fondamentali, principi generali di progettazione - Specifiche e principi tecnici  
Machine safety - Fundamental concepts. General design principles - Technical specification and principals.

PLACE:  
ASSIGOS/N  
SURNAME - NAME:  
BRANCHINI RIZIERI  
POSITION:  
SOLE DIRECTOR  
DATE:  
/ / /

SIGNATURE:.....

## Dear Customer,

Thank you for choosing one of the **A.O.M.- AMERICA** products.

**A.O.M.- AMERICA** is a division of a leading manufacturer in the field of painting systems and machinery.

The name **ASTURO ORIGINALI MAVES Spa** has always meant reliability and safety, a fact which has been supported by over 80 years of experience and by our Customer satisfaction.

All our components have been designed and manufactured to guarantee the best performance ever.

To maintain the high quality level and lengthy reliability of our products throughout the years, always use original spare parts.

All **ASTURO ORIGINALI MAVES Spa** units are equipped with the CERTIFICATION in accordance with EUROPEAN DIRECTIVE **89/392** (Machine Directive.)

We are certain we have met all safety requirements and we feel confident we have further improved working standards.

Our units, in fact, have the identification in accordance with  rulings. Furthermore, they are delivered with the instruction manual and the certificate with the Declaration of Conformity to European Directive 89/392 and to its various amendments.

*The Management*

## USE AND MAINTENANCE MANUAL



### GENERAL CONTENTS

HOW TO USE THE MANUAL.....	4
SYMBOLS USED.....	4
INFORMATION LETTER.....	5
1.1 PACKAGING.....	6
2.1 IDENTIFICATION DATA.....	6
2.2 SPRAY GUN DESCRIPTION.....	7
2.3 TECHCAL FEATURES.....	8
2.4 STANDARD AND OPTIONAL COMPONENTS.....	8
2.5 PAINTS, FLUIDS AND OTHER PRODUCTS.....	9
2.6 DIMENSIONS.....	9
3.1 INSPECTION OF PURCHASED PRODUCT.....	10
3.2 INSTALLATION CONDITIONS.....	10
3.3 HOW TO USE THE SPRAY GUN.....	10
3.4 EQUIPMENT AND CONDITIONS NEEDED TO WORK.....	11
3.5 SAFETY PROCEDURES DURING USE.....	11
4.1 PRESSURE DISCHARGE OPERATIONS.....	12
4.2 ROUTINE MAINTENANCE.....	12
4.3 TROUBLESHOOTING.....	13
WARRANTY	
SPRAY GUN ASSEMBLING DRAWING	

### HOW TO USE THE MANUAL

The following manual is a document that accompanies the machine throughout its lifetime. It is, therefore, an integral part of the machine. Carefully read the following warnings and procedures before engaging in any activity with this machine, including handling and unloading it from its transportation mean.

### SYMBOLS USED

All operations which might be dangerous if not performed correctly are indicated with the following symbol:

All operations which, in order to avoid risks, must be performed by trained and authorized personnel are indicated by the following symbol:

All personnel in charge of using the machine must be thoroughly trained; all the above information must be thoroughly understood and applied.

## USE AND MAINTENANCE MANUAL



### INFORMATION LETTER

The following maintenance and instruction manual is an integral part of the machine and must always be available to the personnel in charge of using and maintaining it. The operator and the personnel in charge of handling the machine must have knowledge of the contents of the manual. The descriptions and illustrations in the manual are not to be considered as binding. Although the main features of the machine described in this manual are not subject to change, **ASTURO ORIGINALI MAVES Spa** reserves the right to change those components, details and accessories it deems necessary to improve the machine or to meet manufacturing or commercial requirements, at any time and without updating this manual immediately.



**WARNING**



**ALL RIGHTS ARE RESERVED.** The reproduction of any part of this manual, in any given form, without prior written authorization from **ASTURO ORIGINALI MAVES Spa**, is strictly forbidden. The content of this manual can be modified without prior notice. Great care has been taken in collecting and checking the documentation contained in this manual in order to make it as complete and comprehensible as possible. **ASTURO ORIGINALI MAVES Spa** machines are not designed to function in areas at risk of fires and/or explosions. For problems or information call **A.O.M.-AMERICA** customer care technical service or your local dealer.

### CUSTOMER CARE TECHNICAL SERVICE

#### **A.O.M.- AMERICA, LLC**

54 S. Commerce Way, Suite 180  
Bethlehem, PA 18017 USA  
TEL. 800-533-6254 or 610-954-5530  
FAX. 610-954-5532  
[www.aomspray.com](http://www.aomspray.com)  
E-MAIL: [AomAmerica@aol.com](mailto:AomAmerica@aol.com)



The equipment original configuration must not be modified in any way.  
On receiving the equipment make sure that:

- + The packaging is intact and undamaged.
- + The supply corresponds to what has been ordered.
- + In case of damage please call **A.O.M.- AMERICA**

## USE AND MAINTENANCE MANUAL



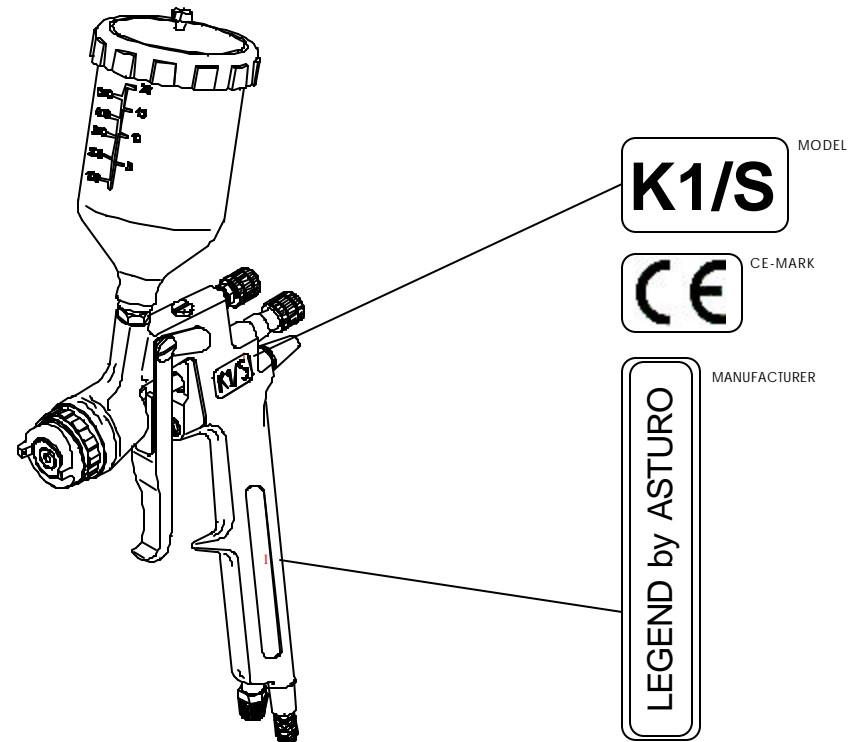
### 1.1 PACKAGING

The K1/S spray gun is packaged in a cardboard box. All optional components are placed with the gun inside the same box. When transporting and storing the equipment make sure the surrounding temperature remains between -15 and 40 °C (5°F and 104°F). If transportation or storage operations last 24 hours or less do not exceed 50°C (122°F) otherwise the spray gun could be damaged.

If the need arises to store the equipment, make sure the humidity values in the storage area remain between 30 and 80%.

### 2.1 IDENTIFICATION DATA

The manufacturer identification and CE RULING n° 89/392 conformity is placed on a side of the spray gun (as shown below).

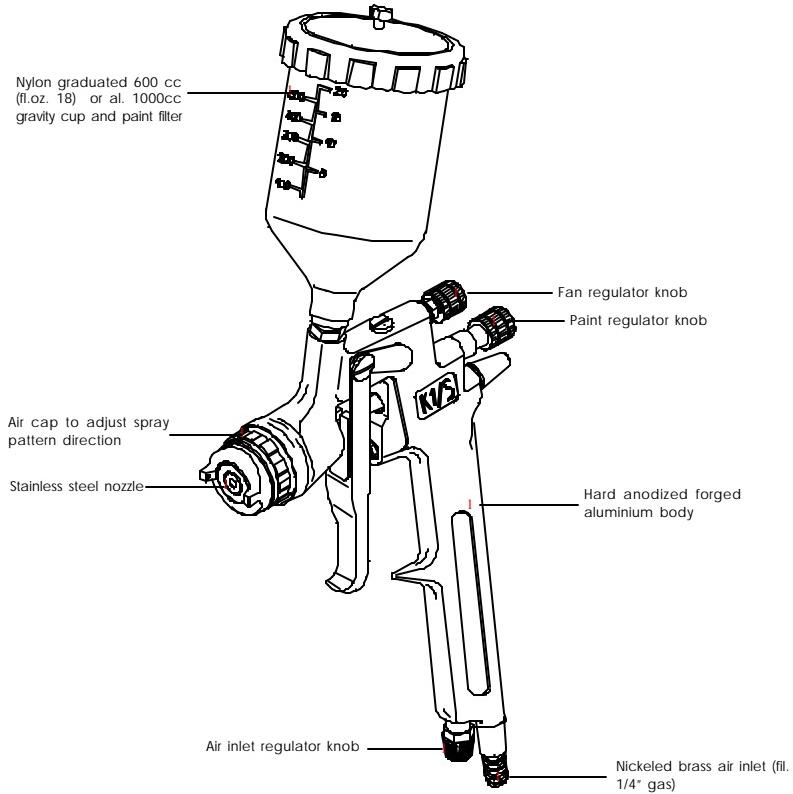


## USE AND MAINTENANCE MANUAL



### 2.2 SPRAY GUN DESCRIPTION

This medium pressure K1/S gravity spray gun is designed for atomization. It is possible to obtain smooth and even surfaces thanks to a micro-atomizing system and reduced overspray. This spray gun is equipped with a 600 cc (18 fl.oz.) or 1000 cc (32 fl.oz.) gravity cup with filter. The gravity spray gun allows a quick and easy change of the paint colour and it can be coupled with a common low pressure compressor. It is also possible to regulate the fan width for perfect applications and to adjust the air inlet and fluid flow. The drawing below indicates the most important features of the spray gun.





## USE AND MAINTENANCE MANUAL

### 2.3 TECHNICAL FEATURES

The painting spray gun must be used with a compressor of 5 bar (71 psi) at least. Its design improves the distribution of the air supplied from the internal holes at very low working pressures.

**ASTURO ORIGINALI MAVES Spa** carries out all the necessary tests on the paint spray gun before delivering it to its customers.

#### NOZZLE TECHNICAL FEATURE TABLE

NOZZLE	PRODUCT														
	Filler primer	Surface primer	Basecoat	Metallic base/water base	Clearcoat	Primers	Stains	Wood filler	Lacquer	Oil-based paint	Rust proof coat	Primer	Sealer	Enamel	Hammered effect paint
Ø1.2 (0.03 in.)				X											
Ø1.3 (0.04 in.)			X												
Ø1.4 (0.045 in.)				X		X									X
Ø1.7 (0.05 in.)	X							X		X					
Ø1.9 (0.06 in.)	X						X			X		X	X		
Ø2.2 (0.07 in.)							X								
Ø2.5 (0.08 in.)								X							

FEATURE	VALUE
Air consumption	240Lt/min (c.f.m. 8,5)
Nozzle sizes	1,0 - 1,2 - 1,3 - 1,4 - 1,7 - 1,9 - 2,2 - 2,5
Fan width	290mm (11.4 in.)
Max pressure	5 Bar (71psi)
Operating pressure	4 Bar (57psi)
Weight without cup	475 gr (16.75 oz.)
Tank capacity	600cc (30 fl.oz.)
Air inlet	M 1/4"

The above technical features are only exemplifying and can vary without prior notice.

### 2.4 STANDARD AND OPTIONAL COMPONENTS

The spray gun is delivered with the following standard components:

- + 1 - Nylon paint filter.
- + 1 - Dismantling wrench.
- + 1 - Cleaning brush.
- + 1 - 600 cc (18 fl.oz.) nylon or 1000cc al. gravity cup.
- + 1 - Use and maintenance manual.
- + 1 - Declaration of conformity to CE RULINGS.
- + 1 - Warranty certificate.

#### On request:

- + Nozzles with different measures.
- + Package of 10 paint filters.
- + Connection hoses.
- + Extra 600 cc (18 fl.oz.) nylon gravity cup.

## USE AND MAINTENANCE MANUAL



### 2.5 PAINTS, FLUIDS AND OTHER PRODUCTS

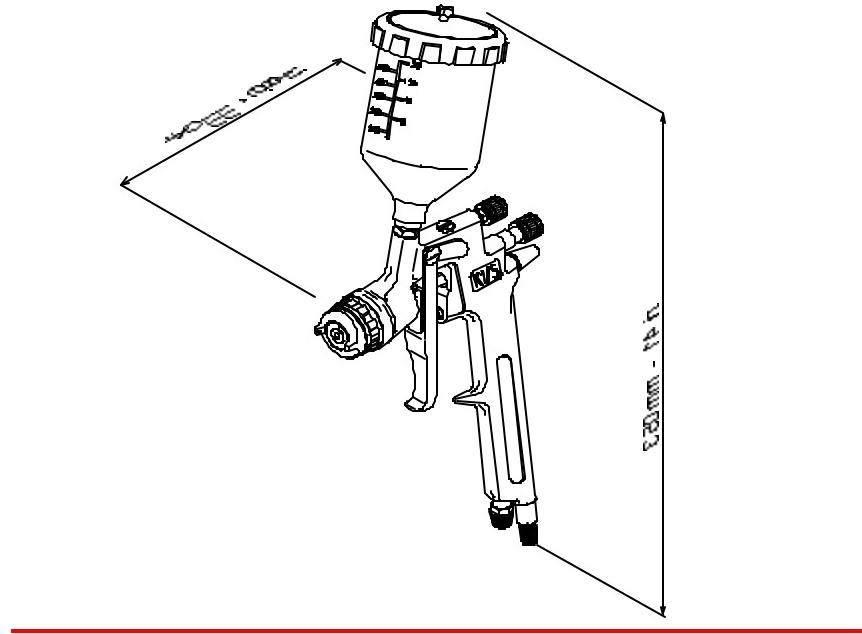
The K1/S spray guns are designed for painting on metal, wood and plastic material. The materials which can be used in this spray gun are: monocomponent varnishes and enamels, liquid inks, double coated metal stains, pastel colors, heavy lacquers and monocomponents, bi-component inks and water-based paints in general. The manufacturer must authorize the use of the spray gun with other products and sometimes the technical features must be changed in order to function properly with the new materials.

**ASTURO ORIGINALI MAVES Spa** is relieved of all responsibility in case of accidents resulting from the use of the spray gun by unauthorized and unqualified personnel or by personnel using the equipment differently than intended.

**DO NOT USE THE PAINTING SYSTEM WITH  
FLAMMABLE OR HIGHLY TOXIC PRODUCTS  
SUCH AS GASOLINE, HERBICIDE AND PESTICIDE**

### 2.6 DIMENSIONS

The spray gun has the following dimensions:



## USE AND MAINTENANCE MANUAL



### 3.1 INSPECTION OF PURCHASED PRODUCT

Inspect the spray gun before its use to check for damages caused by transportation or improper storage. Make sure that all standard and optional components have been delivered.

### 3.2 INSTALLATION CONDITIONS

It is advisable to use dry compressed air to obtain the best painting results.

To mount the hoses proceed as follows (use the drawing below):

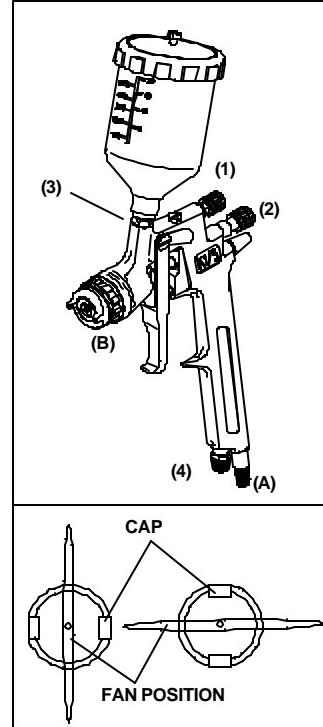
- + Connect the air inlet hose (RED hose) to the spray gun 1/4" nipple (**A**). The compressed air must come from a normal compressor with an operating pressure of 4 bar (50 psi). *Use 30 to 40psi with most coatings*
- + Connect the paint gravity cup to the spray gun connection (**3**).
- + Fill the cup with paint.
- + Select the most appropriate nozzle.

#### **WARNING**

Before you start using the equipment, make sure the connections and hoses are in perfect working conditions, that is without holes, bends or splits.

### 3.3 HOW TO USE THE SPRAY GUN

- + Adjust the fan with the regulator knob (**1**) (if the knob is opened the fan becomes wider, if the knob is closed the fan gets narrower).
- + Adjust the fan position by rotating the air cap (**B**) (see drawing below).
- + Gradually open the fluid passage by turning the fluid regulator knob **2** until the desired quantity is obtained. Check the regulation on a smooth trial surface until the desired fan width is obtained.



## USE AND MAINTENANCE MANUAL



### 3.4 EQUIPMENT AND CONDITIONS NEEDED TO WORK

Painting operations **MUST** be carried out in an appropriate spray booth equipped with a filtering system. Do not use the spray gun if the filtering system is not activated. Always wear protection gloves, goggles, breathing filters with active carbon and adequate clothing for the protection of the entire body.

### 3.5 SAFETY PROCEDURES DURING USE

TO USE the painting unit **STRICTLY OBSERVE**the following precautions and safety criteria. **ASTURO ORIGINALI MAVES Spa** declines every responsibility whatsoever in case the user does not observe said precautions and safety criteria; furthermore, it is not responsible for any kind of negligence when using the equipment.

#### WARNING

- ☞ Always wear protective gloves, masks, breathing filters with activated carbon and adequate clothing for the protection of the entire body when using the spray gun.
- ☞ The spray gun is employed with paints and thinners which are highly inflammable, therefore, use the spray gun in well ventilated areas and avoid any action which might start a fire (eg. smoking, high temperature slags or shavings, sparks or electric elements).
- ☞ CHECK the chemical compatibility of the products on their technical safety charts. Further information on the materials which make up the spray gun are available, on request, at **ASTURO ORIGINALI MAVES Spa**.
- ☞ The use of products which contain organic solvents might cause intoxication because of the created toxic vapours.
- ☞ DO NOT USE the unit with food or medicines.
- ☞ DO NOT EXCEED the indicated maximum working pressure (see section 2.3).
- ☞ BEFORE starting on any dismantling, cleaning, maintenance or assembly operation DISCHARGE the pressure in the hoses (see section 4.1).
- ☞ Never aim the spray gun at anything other than the surface you intend to spray.

#### IMPORTANT

DO NOT USE the unit with HALOGENATED HYDROCARBON thinners (eg. Ethylchloride, Trichloride, etc.) which might explode when in contact with aluminum or galvanized parts.

## USE AND MAINTENANCE MANUAL



### 4.1 PRESSURE DISCHARGE PROCEDURES

When the spray gun is stopped to carry out maintenance operations or at the end of the work session the operator must discharge the remaining pressure.

**WARNING**

**THE PRODUCT IN THE FLEXIBLE TUBE IS STILL UNDER PRESSURE.**

PROCEED AS FOLLOWS:

- 1) Shut off the spray gun air supply (turn the compressor off).
- 2) Take a metal bucket and by pressing the spray gun against its side. Discharge the residue product by pressing the trigger.
- 3) Clean as described in the following paragraph.

### 4.2 ROUTINE MAINTENANCE

The routine maintenance of the K1/S spray gun is simple and does not require special operations because its components do not need to be lubricated. Clean the spray gun daily or at the end of each working session so that product residue will not dry out on its walls, thus guaranteeing long term efficiency.

**CLEANING OPERATIONS:**

Pour some clean thinner inside the cup, shake the spray gun and spray (repeat the entire operation at least twice). Unscrew the cap ring and with the given wrench disassemble the nozzle. Place everything in the thinner. Clean the head of the spray gun, the needle and the nozzle with the given brush. Assemble the spray gun, lubricate the threaded parts with a thin layer of oil and screw it tightly.

**DO NOT USE POINTED METAL OBJECTS TO CLEAN CLOGGED PASSAGE HOLES.  
THESE OPERATIONS WOULD DAMAGE THEM, REDUCING THEIR SPRAYING  
QUALITY.**

Wash the paint cup and the lid with thinner (if the cup is not going to be used again do not assemble it back on) and clean the body of the spray gun with a cloth soaked in it. In case industrial washers are used to clean the spray gun, close the flow regulator knob and the needle adjustment knob tightly by turning them clockwise in order to avoid thinner infiltrations which might, in time, damage the packings. Once in a while, lubricate the threaded parts such as the air cap ring, the needle stroke adjustment knob and the air valve rod with a thin layer of synthetic oil, in order to avoid seizing up caused by the effect of thinners on the spray gun components.

**THE LUBRICANTS USED MUST NOT CONTAIN SILICONE.**

**WARNING**

**IF THE NEED ARISES CALL THE A.O.M.- AMERICA CUSTOMER CARE TECHNICAL  
SERVICE**



## USE AND MAINTENANCE MANUAL

### 4.3 TROUBLESHOOTING

This chapter describes how to solve the most common problems which could affect the unit.  
The problem is indicated by the following symbol: (6)

The possible cause is indicated by the following symbol: (B)

The possible solution is indicated by the following symbol: (I)

#### 6 THE SPRAY GUN SPRAYS INTERMITTENTLY ?

- B Spray nozzle is loose.
- B Worn needle packing.
- B Worn nozzle.
- B Worn head packing.
- I Tighten the nozzle.
- I Replace the packing.
- I Replace the nozzle.
- I Replace the head packing.

#### 6 UNEVEN JET ?

- B Worn or dirty cap air holes.
- B Worn or dirty nozzle.
- I Clean the spray gun components carefully.
- I Replace damaged parts.

#### 6 PAINT LEAKS OUT OF THE PACKING?

- B Worn packing.
- I Replace the packing.

#### 6 NOZZLE LEAKS WITHOUT PRESSING THE TRIGGER?

- B Needle and nozzle are dirty with dry paint
- B Worn needle and nozzle.
- I Clean the spray gun parts very carefully.
- I Replace the needle and the nozzle.

#### 6 AIR COMES OUT WHEN THE TRIGGER IS RELEASED?

- B The air valve rod does not slide.
- B The air valve body is dirty.
- B Air valve packing nut too tight
- I Lightly lubricate the components of the spray gun.
- I Clean with care.
- I Loosen packing nut.

#### 6 SCARSE FLUID FLOW?

- B Clogged cup lid plug.
- I Clean with care.

## **WARRANTY**

All **ASTURO ORIGINALI MAVES Spa** appliances are guaranteed for a period of 12 months from the date written on the invoice, unless otherwise stated in writing. The warranty covers all manufacturing faults and material defect. Replacements and repair operations are covered only if carried out by our company and at our servicing shops.

The faulty parts must be sent CARRIAGE FREE.

Once the components have been repaired they will be sent CARRIAGE PAID to the customer. The warranty does not cover our company personnel aid during installation or dismantling operations. If for practical purposes one of our employee is sent to the premises, a charge will be made for the time plus extra for travelling and expenses.

Our warranty does not cover direct or indirect damage, to people or property, caused by our appliances and it does not cover repair operations carried out by the owner or by a third party.

The following are not covered by our warranty:

- + failure caused by incorrect use or assembly.
- + failure caused by external agents.
- + failure caused by lack of maintenance or negligence.

### **WARRANTY FORFEITURE:**

If the form attached below is not completed and returned.

In case of delayed payment or other contract defaults.

All repair operations carried out under warranty do not interrupt its duration.

Whenever changes or repairs are carried out on our machinery without prior authorization  
Whenever the unit seems tampered with, dismantled or previously repaired in unauthorized workshops.

Whenever the serial number is damaged or removed.

When the damage is caused by improper use or functioning, or if the machine falls, is bumped or by other causes of malfunctioning not due to normal working conditions

**All disputes will be settled in the court of justice of Milan (Italy).**

---

NAME:	_____
COMPANY:	_____
ADDRESS:	_____
V.A.T. NUMBER	_____
UNIT MODEL:	_____
SERIAL NUMBER:	_____
DATE:	_____
STAMP AND SIGNATURE:	_____

**Send this form fully completed (capital letters) to:**

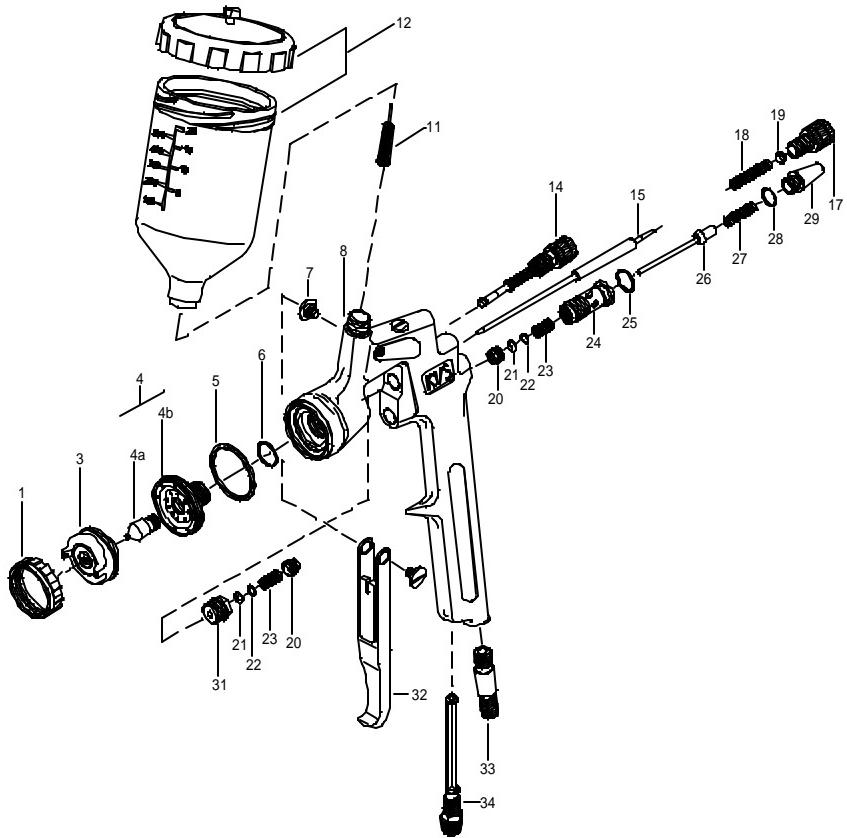
**A.O.M.- AMERICA**

54 S. Commerce Way, Suite 180  
Bethlehem, PA 18017 USA

## USE AND MAINTENANCE MANUAL



### SPRAY GUN ASSEMBLY DRAWING





## USE AND MAINTENANCE MANUAL

### SPRAY GUN ASSEMBLY DRAWING

Pos.	CODE	Description
1	24005R	Air cap ring
3	254XXR	K1/S cap
4	267XXR	K1/S nozzle
4a	257XXR	Tip
4b	24351R	Tip holder
5	24013R	PTFE spraying nozzle packing
6	24017R	Head packing
7	24066R	Lever pivot screw
8	25030R	Anodized body
11	304007	Legend/BBS upper cup filter
12	18500SE	600cc (18 fl.oz.) nylon gravity cup
14	25050R	K1/S-MIX paint regulator knob
15	252XXR	Fluid adjusting needle
17	24034R	Needle adjusting stroke knob
18	24041R	Spring-pushingneedle
19	24039R	Spring/knob plate
20	24062R	Nick. air packing nut
21	24060R	Air/needle valve packing
22	24058R	3x7x0.5 (0.1x0.3x0.01 in.) zinc washer
23	24056R	Air/needle valve packing spring
24	24050R	Air valve body
25	24052R	3030 viton o-ring
26	25018R	K1/S air valve rod
27	24047R	Air valve spring
28	24045R	2037 viton o-ring
29	24043R	Air valve plug
31	25016R	Needle packing bush
32	24070S	Trigger
33	24081R	1/4" nick. air inlet nipples
34	24084R	Legend pressure regulator
35	24094R	Legend wrench
36	25026R	Zinc gravity spray gun holder
37	24097R	Nylon cleaning brush

#### KIT

238XX      Needle-nozzle-cap kit (replace xx with nozzle sizes) (Pos. 3-4a-5-15)  
25089R      K1 packing and spring kit (Pos. 5-18-19-23x2-21X2-22X2-27-28-25-26-6)  
304117      700 mesh 10 filter kit (67 ME) (Pos. 11x10)